

AMENDMENTS TO THE CLAIMS

Claims 1 to 23. (Canceled)

Claim 24. (New) A metal or metal oxide porous material comprising rod-shaped crystals of a metal or metal oxide, which construct an open framework architecture, thereby forming a sponge-like material.

Claim 25. (New) The metal or metal oxide porous material of claim 24, which is a soft or hard sponge-like material, depending on its preparation conditions.

Claim 26. (New) The metal or metal oxide porous material according to claims 24 or 25, wherein the cross-sectional dimension of the rod-shaped crystal, taken in a direction perpendicular to the length-wise direction, is between 1 μ m to 50 μ m depending on its preparation conditions.

Claim 27. (New) The metal porous material according to claims 24 or 25, wherein the metal is selected from the group consisting of noble metals and transition metals.

Claim 28. (New) The metal porous material according to claim 27, wherein the noble metal is silver or gold.

Claim 29. (New) The metal porous material according to claims 24 or 25, wherein the metal is composed of more than one type of metal element.

Claim 30. (New) The metal oxide porous material according to claims 24 or 25, wherein the metal oxide is selected from transition metal oxides.

Claim 31. (New) The metal oxide porous material according to claim 30, wherein the transition metal oxide is iron oxide.

Claim 32. (New) The metal oxide porous material according to claims 24 or 25, wherein the metal oxide is composed of more than one type of metal oxide.

Claim 33. (New) The metal or metal oxide porous material according to claims 24 or 25, which further comprises particles of a different type of metal element or metal oxide on its surface.

Claim 34. (New) A method for preparing the metal or metal oxide porous material of claims 24 or 25, which comprises:

preparing an aqueous viscous solution of metal or metal oxide salt material and dextran or a highly water soluble carbohydrate polymer;
allowing said aqueous viscous solution to self-solidify to form a solid matter; and
baking said solid matter.

Claim 35. (New) A method for preparing the metal or metal oxide porous material of claim 33, which comprises:

preparing an aqueous viscous solution of metal or metal oxide salt material, dextran or a highly water soluble carbohydrate polymer, and a different type of metal or metal oxide salt material;
allowing said aqueous viscous solution to self-solidify to form a solid matter; and
baking said solid matter.

Claim 36. (New) A method for preparing the metal or metal oxide porous material of claims 24 or 25, which comprises:

preparing an aqueous viscous solution of colloidal metal oxide particles and dextran or highly water soluble carbohydrate polymer of glucose;
allowing said aqueous viscous solution to self-solidify to form a solid matter; and
baking said solid matter.

Claim 37. (New) The method according to claim 34, wherein the baking process is carried out at a temperature of not less than 500°C.

Claim 38. (New) The method according to claim 37, wherein the baking process is carried out at a temperature in a range from not less than 500°C up to 900°C.

Claim 39. (New) The method according to claim 34, wherein the carbohydrate polymer is a polysaccharide.

Claim 40. (New) The method according to claim 34, wherein dextran or the carbohydrate polymer in the aqueous viscous solution has a concentration in the range of 10 to 80% by weight and the metal, metal oxide salt material, or colloidal metal oxide has a concentration in the range of 10 to 90% by weight.

Claim 41. (New) The method according to claim 40, wherein the metal, metal oxide salt material, or colloidal metal oxide has a concentration in the range of 15 to 60% by weight.

Claim 42. (New) The method according to claim 36, wherein dextran or the carbohydrate polymer in the aqueous viscous solution has a molecular weight in the range of 10,000 to 500,000.

Claim 43. (New) A metal or metal oxide catalyst which comprises the metal oxide porous material according to claims 24 or 25 as at least one type of effective active component.

Claim 44. (New) The metal or metal oxide catalyst according to claim 43, wherein the metal is silver.

Claim 45. (New) The method according to claim 34, wherein the metal, metal oxide salt material, or colloidal metal oxide are added to the aqueous viscous solution in the form of nanoparticles or micro particles.

Claim 46. (New) The method according to claim 34, wherein the aqueous solution further contains nanoparticles or microparticles of a metal, metal oxide salt material, or colloidal metal oxide.